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10/734,491	12/11/2003	Maksim Ioffe	NVID-078/00US	1636

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EXAMINER
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ART UNIT	PAPER NUMBER
2152	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/734,491	IOFFE ET AL.
	Examiner	Art Unit	
	Brian P. Whipple	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 October 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-20 are pending in this application and presented for examination. Claims 15-

20 were added by Applicant's amendment filed on 10/22/07.

Response to Arguments

2.   Applicant's arguments filed 10/22/07 have been fully considered but they are not

persuasive.

3.   Applicant argues Tripunitara teaches away from a firewall local to a host computer

station. A firewall local to a host computer station is well known in the art and addressed

accordingly below in the prior art rejections. Furthermore, the claiming of a firewall local to

a host computer is added by amendment, and therefore addressed properly under a prior art

rejection below as opposed to a rebuttal to the previously cited art as in the original Office

action.

4.   Applicant argues Tripunitara is silent on cached address resolution information of a

host computer station. Applicant is directed to Col. 3, ln. 3-14 of Tripunitara which explicitly

defines the invention as directed to preventing the poisoning of the ARP caches of hosts.

5.   Applicant argues Tripunitara is silent on issuing requests for network elements to

reply with address resolution information when it detects discrepancies with cached address

resolution entries "in order to check the authenticity of the unsolicited message submitting

the new address resolution for the network protocol address." This is amended subject matter

and is properly addressed under the prior art rejections below.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to a
> person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

2.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tripunitara et al. (Tripunitara), in view of what was well known in the art.

3.   As to claim 1, Tripunitara discloses a method of using a networking subsystem to

prevent spoofing of an address resolution cache of the host computer station (Col. 3, ln. 3-

14), the method comprising:

said networking subsystem receiving an unsolicited message from a network that submits a new address resolution for a network protocol address (Col. 5, ln. 33-35 and 53-55);

said networking subsystem checking independently cached address resolution information associated with the host computer station (Col. 2, ln. 19-24; Col. 5, ln. 34-46);

in response to determining that cached address resolution information for said network protocol address has an old address resolution which differs from said new address resolution (Col. 5, ln. 51-53 and 65-67), said networking subsystem issuing a request for network elements having said network protocol address to reply with address resolution information (Col. 5, ln. 46-55; Col. 6, ln. 10-31) in order to check the authenticity of the unsolicited message submitting the new address resolution for the network protocol address (Col. 3, ln. 3-14; Col. 5, ln. 31-33);

in response to determining that no reply messages confirm that a network element has said old address resolution (Col. 5, ln. 32-40), said networking subsystem permitting at least one message to pass onto said host computer station which includes said new address resolution (Col. 5, ln. 32-40); and

in response to receiving a reply message that confirms a network element has said old address resolution (Col. 5, ln. 46-55), said networking subsystem blocking at least one message which include said new address resolution from passing onto said host computer station (Col. 5, ln. 41-46);

wherein said networking subsystem protects said host computer station from spoofed

address resolution messages (Col. 1, ln. 19-31; Col. 2, ln. 19-24).

Tripunitara may be interpreted as disclosing a firewall, as a "dynamic packet filter" is

shown in Fig. 2. However, Tripunitara does not use the term "firewall."

Official Notice (see MPEP 2144.03, Reliance on "Well Known" Prior Art) is taken that

it was well known in the art to get the advantage of providing an extra layer of security for

host computers without the need for installing an external component to act as a firewall by

using a local firewall.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Tripunitara by using a local firewall to gain the

advantage of this well known feature.

4.   As to claim 2, Tripunitara discloses the invention substantially as in parent claim 1,

including said network implements a LAN network running Internet Protocol using the

Address Resolution Protocol (ARP) for resolving medium access control (MAC) addresses,

and said address resolution cache is an ARP cache mapping IP addresses to MAC addresses

(Tripunitara: Col. 3, ln. 15-37).

Tripunitara does not explicitly define the use of IPv4. However, Official Notice is taken that IPv4 was extremely well known in the art and the standard for IP communications in LAN and Internet communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tripunitara by using the well known IPv4 in order to implement a pre-defined standard for network communications, for the purpose of maximizing the compatibility with other networking elements.

5. As to claim 3, the claim is rejected for the same reasons as claim 2 above. IPv6 with Neighbor Discovery was extremely well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tripunitara by using IPv6 with Neighbor Discovery in order to implement a pre-defined standard for network communications, for the purpose of maximizing the compatibility with other networking elements, and in order to add the capacity for a greater number of host addresses and the greater security of IPv6.

6. As to claims 4, 7-8, and 10-11, the claims are rejected for the same reasons as claim 1 above.

7.   As to claims 5 and 13, the claims are rejected for the same reasons as claim 2 above.

8.   As to claims 6 and 14, the claims are rejected for the same reasons as claim 3 above.

9.   As to claim 9, Tripunitara discloses the invention substantially as in parent claim 4,

including storing cache entries with a residency lifetime greater than in said address

resolution cache (Tripunitara: Col. 5, ln. 65 – Col. 6, ln. 3) of said host computer station

(Tripunitara: Col. 3, ln. 3-14).

10.   As to claim 12, the claim is rejected for the same reasons as claim 9 above.

11.   As to claims 15-20, the claims are rejected for the same reasons as claim 1 above. It is

well known in the art to include the functions of a firewall on a host computer, and

therefore, on the chipset of a host computer.

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until

after the end of the THREE-MONTH shortened statutory period, then the shortened

statutory period will expire on the date the advisory action is mailed, and any extension fee

pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.

In no event, however, will the statutory period for reply expire later than SIX MONTHS

from the date of this final action.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian P. Whipple whose telephone number is (571) 270-

1244. The examiner can normally be reached on Mon-Fri (8:30 AM to 5:00 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-

8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access

to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free). If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or

571-272-1000.

Brian P. Whipple
12/28/07

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER